

REMARKS

These remarks are in response to the office action mailed November 3, 2005. Claims 67-69 have been cancelled.

Allowable Subject Matter

The Office Action states that claims 51-64 are allowed. In the section entitled "Reasons for Allowance," however, the Office Action indicates that claim 63 was allowed because it includes language directed to steps that cause images to be trimmed. But claim 63 and its dependent claim 64 do not include such steps. While applicant believes that these claims should be in condition for allowance, it appears that they may have been inadvertently listed as allowed in the Office Action. Clarification is therefore respectfully requested.

Conversely, dependent claims 46, 47, 49, and 50 include trimming language, but were rejected in the Office Action. Applicant therefore respectfully requests reconsideration of the rejection of these claims.

Claim 15

The invention, as now presented in amended claim 15, relates to a video editing system that includes a random-access computer-readable medium for storing video information in data files, a display, and a standard alphanumeric keyboard. The system also includes computing apparatus that is operative to display information from the data files in a source video window and to display results of editing operations in an edited window. The computing apparatus can select between these windows in response to a signal from a key on the alphanumeric keyboard. Three keys located right next to each other on one horizontal row in the alphanumeric keyboard control shuttling of playback of the video information in the selected window. A first of the keys is for forward shuttling, a second is for pausing, and a third is for reverse shuttling.

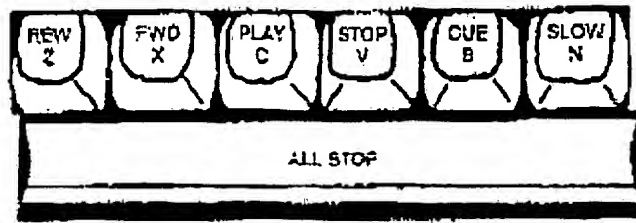
The second key is right between the first and third keys. A first actuation of the first key in a paused condition causes a change in forward shuttle speed from the paused

condition to a first forward shuttle speed. A second actuation of the first key, after the first actuation of the first key and while images are presented at the first forward shuttle speed, causes a change in forward shuttle speed from the first forward shuttle speed to a second forward shuttle speed that is faster than the first forward shuttle speed.

Conversely, a first actuation of the third key in the paused condition causes a change in reverse shuttle speed from the paused condition to a first reverse shuttle speed. A second actuation of the third key, after the first actuation of the third key and while images are presented at the first reverse shuttle speed, causes a change in reverse shuttle speed from the first reverse shuttle speed to a second reverse shuttle speed that is faster than the first reverse shuttle speed. After any of the actuations of the first and third keys, a first actuation of the second key causes the video material to be paused.

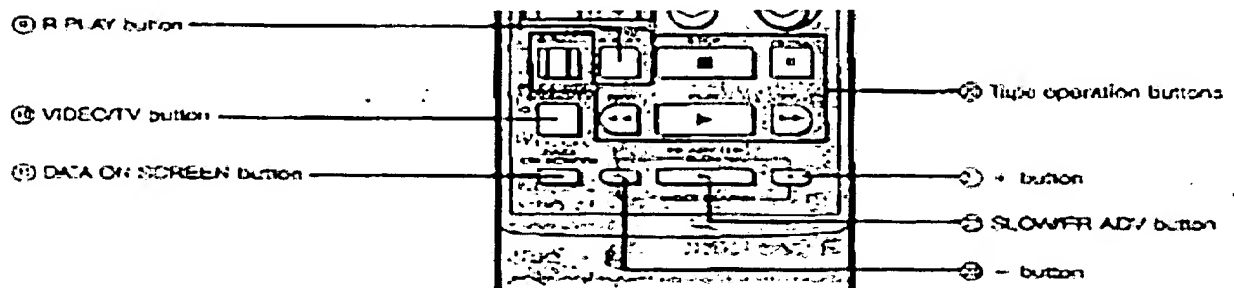
As discussed extensively in prior remarks, this aspect of the invention can allow a user to efficiently and intuitively shuttle backwards and forwards through material at different speeds to find an edit point using only a few keystrokes of three fingers of one hand. For example, a user could begin shuttling through a large video file by pressing the forward shuttle key three times to quickly shuttle toward a desired edit point at triple speed. If the user then passes the edit point, he or she can begin reverse shuttling in a single keystroke to achieve a single-speed reverse shuttling and then presses the central pause key to pause at the edit point with another keystroke. This shuttling interface therefore allows a user to reach an edit point efficiently and intuitively while leaving one hand free to perform other operations.

Claim 15 stands rejected as obvious over Anderson in view of a Mitsubishi VCR owner's manual. Anderson discloses a keyboard for a computer editing system that he characterizes as representative of top-of-the-line video edition systems. It includes a series of the following six keys: REW, FWD, PLAY, STOP, CUE, SLOW (p. 69, col. 1):



Anderson also states that some systems feature a "jog" function. Activating "jog" and pushing either the "advance" or "retard" control is said to jog the playback VTR one frame per button push, with the edit point entry number changing accordingly. The arrangement of such keys is not illustrated or described.

The Mitsubishi owner's manual describes the operation of a hand-held remote control for a VCR. Because it includes channel buttons and does not include any editing functions, it appears that this remote control is intended for use with a consumer-grade VCR of the type that can be used to record and play back off-the-air television programs. It includes a SLOW/FR ADV button (22) surrounded by a "-" (23) button and a "+" button (24):



Pressing the SLOW/FR ADV button while in playback mode causes the VCR to begin slow-motion playback, and pressing it in pause mode causes the VCR to advance one frame at a time. Pressing the "+" button in slow-motion mode increases slow-motion speed, and pressing the "-" button in slow-motion mode decreases slow motion speed.

The Office Action states that Anderson discloses three adjacent keys with a first being for forward shuttling, a second being for pausing, and a third being for reverse shuttling, but acknowledges that Anderson does not explicitly disclose the claimed actuation

steps. The Office Action goes on to argue that the "-", SLOW/FR ADV, and "+" keys shown in the Mitsubishi owner manual teach the steps.

But Anderson does not show three keys located right next to each other on one horizontal row in his alphanumeric keyboard, including a first one for forward shuttling, a second one for pausing, and a third one for reverse shuttling, with the second key being right between the first and third, as now required by amended claim 15. Anderson's first figure on page 69 (reproduced above) instead shows the following sequence of keys: REW, FWD, PLAY, STOP, CUE, SLOW. This order does not satisfy the claim language as now amended, because it does not disclose forward shuttling, pausing, and reverse shuttling keys right next to each other on a horizontal keyboard row with the second key being between the first and third ones. Anderson instead only shows a keyboard with REV and FWD keys, and fails to disclose a pause key between them. And Anderson says nothing about where one would find the jog, advance, and retard keys.

Anderson's REV and FWD keys also do not operate in the manner now claimed in amended claim 15. Claim 15 now requires that a second actuation of the first key, after a first actuation and while images are presented at a first forward shuttle speed, causes a change in forward shuttle speed from the first forward shuttle speed to a second forward shuttle speed that is faster than the first forward shuttle speed. But nowhere does Anderson indicate that his FWD key should respond to multiple actuations at all. Similarly, Anderson does not disclose anywhere that a second actuation of his REV key should cause a change in reverse speed.

Anderson's advance and retard keys also do not operate in the manner now claimed in amended claim 15. These keys are jog controls that advance playback one frame per button push. A second actuation of the Anderson advance key while images are presented at a first shuttle speed therefore does not cause images to be presented at a faster shuttle speed. Instead, a second actuation of the Anderson advance key simply causes the system to present a later still image. And a second actuation of Anderson's retard key does not cause images to be presented at a faster reverse shuttle speed, but simply causes the system to present an earlier still image.

Careful analysis therefore indicates that the Anderson document does not disclose either the key arrangement or functionality as now claimed in amended claim 15. Neither the REV and FWD key set illustrated on p. 69, or the unshown jog, advance, and retard key set constitute three keys located right next to each other on one horizontal row in an alphanumeric keyboard, including a first one for forward shuttling, a second one for pausing, and a third one for reverse shuttling, with the second key being right between the first and third, as now required by amended claim 15. Nor does Anderson indicate that a second actuation of a first key while images are presented at a first forward shuttle speed causes a change to a faster forward shuttle speed as now required by amended claim 15. Moreover Anderson does not indicate that a second actuation of a third key while images are presented at a first reverse shuttle speed causes a change to a faster reverse shuttle speed as now required by amended claim 15.

The Mitsubishi manual also fails to disclose the invention as now presented in amended claim 15. Claim 15 requires three keys located right next to each other on one horizontal row in his alphanumeric keyboard, with a first one being for forward shuttling, a second one being for pausing, and a third one being for reverse shuttling. But the Mitsubishi manual does not disclose keys in an alphanumeric keyboard at all; it presents buttons in a remote control. And the central SLOW/FR ADV button does not act as a pause button. It instead causes the VCR to begin slow motion playback when it is in playback mode, and it causes the VCR to advance one frame at a time when it is in pause mode. The Mitsubishi manual therefore fails to disclose alphanumeric keyboard keys or their arrangement as now claimed in amended claim 15.

The Mitsubishi buttons also do not operate in the manner now claimed in amended claim 15 in slow mode. Claim 15 now requires that a second actuation of a third key, after a first actuation and while images are presented at a first reverse shuttle speed, causes a change in reverse shuttle speed from a first reverse shuttle speed to a second reverse shuttle speed that is faster than the first reverse shuttle speed. But nowhere does the Mitsubishi manual indicate that pressing the "-" button increases reverse shuttle speed. It instead decreases slow motion speed in slow motion mode. In this mode, therefore, the Mitsubishi

manual does not disclose pausing or speeding up reverse shuttling at all. This is quite different from the operation of the system as now claimed in amended claim 15.

The Office Action asserts that "Mitsubishi does teach both slow motion playback speed." After careful review of the Mitsubishi manual, however, applicant has not found any indication that reverse playback can be achieved in any other way than through the "R PLAY" button (9). And this button is not part of a set of three keys located right next to each other on one horizontal row, with a first one being for forward shuttling, a second one being for pausing, and a third one being for reverse shuttling, as now required in amended claim 15.

The Mitsubishi buttons also do not operate in the manner now claimed in amended claim 15 in playback mode. In this mode, the "-" and "+" buttons initiate forward and reverse index searches. But nowhere is there any disclosure that a second actuation of either button will change playback speed. And pressing the "SLOW/FR ADV" key in playback mode does not pause the VCR, but instead takes the VCR out of playback mode and begins slow motion playback. This is again quite different from the operation of the system as now claimed in amended claim 15.

Careful analysis therefore indicates that the Mitsubishi document does not disclose either the key arrangement or functionality as now claimed in amended claim 15. In neither mode do the "-", SLOW/FR ADV, and "+" constitute three keys located right next to each other on one horizontal row in his alphanumeric keyboard, with a first one being for forward shuttling, a second one being for pausing, and a third one being for reverse shuttling, as now required by amended claim 15. Nor do they indicate that a second actuation of a third key while images are presented at a first reverse shuttle speed causes a change to a faster reverse shuttle speed as now required by amended claim 15.

And because neither document shows a pause key located between forward and reverse shuttling keys with multiple actuations of the shuttling keys operating to change shuttling speeds as now claimed in amended claim 15, it is not clear how one would combine the two references in such a way as to obtain the invention. Since Mitsubishi's group of three keys does not operate as claimed, simply inserting this group into the Anderson keyboard would not operate as claimed either. One would therefore have to

instead selectively mix and match various functions from selected modes in the two references to even come close to the claimed invention. But there is no teaching in any of the prior art of record that would motivate one of ordinary skill to even consider such a complex undertaking.

In fact, one of ordinary skill in the art also would not have been motivated to modify the Anderson's keyboard to use the Mitsubishi keys at all. Anderson's keyboard is for a professional editing system with advanced editing functions, while Mitsubishi's remote control is for a consumer-grade VCR for recording television shows. There is no reason apparent from any of the prior art of record that one of ordinary skill in the art would have reason to believe that an improvement would be obtained if he were to modify Anderson's professional editing system to include Mitsubishi's keys. And Anderson's characterizations of his keyboard as representative of top-of-the line editing systems would further dissuade one of ordinary skill from seeking alternative approaches to shuttle key arrangements. For these reasons, one of ordinary skill in the art would not have been motivated to combine the Anderson and Mitsubishi teachings.

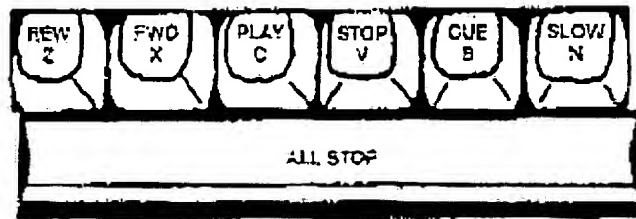
Claims 21, 27, 33, 39, 63, and 65 also distinguish over the prior art of record for at least reasons similar to those advanced in support of claim 15.

Claim 48

The invention, as now presented in amended claim 48 relates to an alphanumeric keyboard for use with a computerized video editing system. This keyboard includes 36 alphanumeric keys and additional keys with typographical symbols disposed in a standard keyboard layout. A set of three keys located right next to each other on one horizontal row of keys includes a first key on the user's left bearing a label indicative of a reverse shuttling function, a second, central key bearing a label indicative of a pause function, and a third key on the user's right bearing a label indicative of a forward shuttling function. The first of the three keys is an "L" key in a QWERTY keyboard layout, the second of the three keys is a "K" key in a QWERTY keyboard layout, and the third of the three keys is a "J" key in a QWERTY keyboard layout.

As presented in earlier remarks, this type of keyboard presents an intuitive and easy-to-learn user interface for a computer-based editing system. Providing a set of three keys right next to each other on a horizontal row that include forward and reverse shuttling functions placed around a pause function allows the user to shuttle through large quantities of material and locate an edit point with three fingers of one hand that does not leave the keyboard. This allows the user to then quickly perform other keyboard-based editing functions, instead of having to move back and forth between mouse and keyboard.

Claim 48 stands rejected as obvious over Anderson in view of Millis et al. As presented above, Anderson discloses a keyboard for a computer editing system that is said to be representative of features available in top-of-the line computer editing systems. It includes a series of the following six keys: REW, FWD, PLAY, STOP, CUE, SLOW (p. 69, col. 1):



Millis et al. disclose a controller 36 that includes an interactive control icon 40 and an interactive slider bar 38 (see Fig. 2). The slider bar has a bar-shaped control dial, standard playback direction/velocity indicators, and a number of control buttons corresponding to the position of the playback direction/velocity indicators. These include radio buttons corresponding to reverse play, step reverse, stop, step forward, and forward play, combined with a slider bar for controlling playback speed (col. 4, lines 16-22).



But Anderson and Millis do not disclose the invention as now presented in amended claim 48, whether taken alone or in combination. Specifically, Anderson provides a six-key arrangement that does not include a set of three keys located right next to each other on one horizontal row of keys includes a first key on the user's left bearing a label indicative of a reverse shuttling function, a second, central key bearing a label indicative of a pause function, and a third key on the user's right bearing a label indicative of a forward shuttling function. And Millis provides a six-position interface with a slider for controlling playback speed. This interface includes a step (jog) button on either side of a stop button, instead of a shuttling key on either side of a pause key. Anderson and Millis therefore do not disclose the invention as now presented in amended claim 48.

And even assuming that one of ordinary skill in the art would be motivated to combine the disclosures of Millis & Anderson, for the sake of argument only, this combination of disclosures does not come any closer to suggesting the invention as claimed in claim 48. Specifically, Anderson provides a six-key arrangement and Millis provides a mouse-based interface that includes a different arrangement of six control positions and a playback speed slider. There is no apparent way to simply combine these interfaces in such a way as to produce a set of three keys located right next to each other on one horizontal row of keys includes a first key on the user's left bearing a label indicative of a reverse shuttling function, a second, central key bearing a label indicative of a pause function, and a third key on the user's right bearing a label indicative of a forward shuttling function. Even if a motivation to combine the teachings of Millis and Anderson is assumed, therefore, this combination still falls short of disclosing the invention.

Nor is there any teaching in either Anderson or Millis to modify their disclosures in such a way as to suggest the invention. Anderson's characterizations of his keyboard as representative of top-of-the line editing systems would also dissuade one of ordinary skill from seeking alternative approaches to shuttle key arrangements. And Millis' use of a playback speed slider instead of a button would have taught away from providing for key-based shuttle commands. Millis and Anderson therefore do not disclose or suggest the invention as claimed in claim 48.

The Office Action takes official notice that it is well known to assign shortcut keys or hot keys to instructions. This rejection is improper because Official Notice can be taken only of facts which are "capable of such instant and unquestionable demonstration as to defy dispute." *In re Ahlert*, 165 USPQ 418, 420 (CCPA 1970). The scope of conclusions drawn from facts supported only by official notice must also be narrow. *See, Id.*, at 420-421. In contrast, the conclusion drawn from the alleged facts in the Office Action is the ultimate legal conclusion of obviousness of the claims to one of ordinary skill in the art, and not a narrow factual conclusion. In view of the foregoing, under MPEP Section 2144.03(C) the applicant respectfully traverses the taking of official notice.

And even admitting that the assertion taken by official notice were true, this assertion combined with the other references of record still does not disclose the invention as now claimed. To even come close to the invention requires an impermissible hindsight-based process of selectively piecing together the assertion with different elements of the documentary evidence. Specifically, the combination of references only teaches Anderson's six-key interface or Millis's different six-position interface with a slider for controlling playback speed. And neither of these includes three adjacent alphanumeric keyboard keys with forward and reverse shuttling functions placed around a pause function. There is no evidence of record that would show, without the aid of hindsight, how one of ordinary skill in the art would selectively assign keyboard shortcuts from the numerous possible combinations to even come close to the invention as now claimed in amended claim 48.

Claim 45

Claim 45 as now amended includes all of the limitations of claim 15 as now amended. It should therefore be allowable for at least reasons similar to those advanced in support of claim 15.

Claim 45 as now amended also includes similar limitations to those included in claim 48 as now amended. It should therefore also be allowable for at least reasons similar to those advanced in support of claim 48. One such reason, which is stated in the Office Action on page 14 at lines 16-18, is that Anderson and Millis do not explicitly

disclose the first, second, and third keys as L, K, and J in a QWERTY keyboard layout. This reason is also applicable to claims 17, 19, 20, 23, 25, 29, 31, 35, 37, 41, and 43.

The remaining claims are dependent on claims addressed above, and should be allowable for at least the reason that they depend on an allowable claim. This application should therefore now be in condition for allowance and such action is respectfully requested. The Commissioner is hereby authorized to charge any additional fees that may be required, or credit any overpayment, to Deposit Account No. 50-0750.

Respectfully submitted,

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Dated

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